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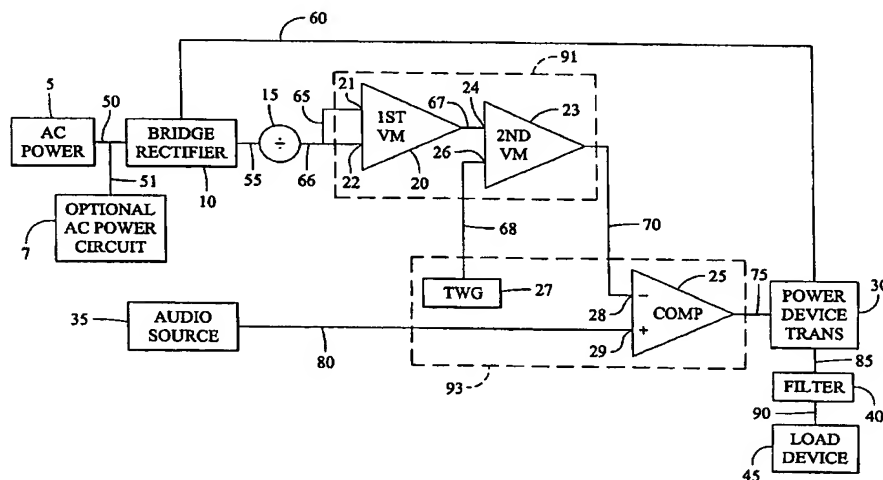
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(54) Title: MODULATED TRIANGULAR WAVE AMPLIFIER



(57) Abstract: The invention is a power amplifier circuit for providing a signal acceptable for use in audio amplifiers or similar applications without requiring a stable power supply free from fluctuation. An alternating current power supply signal rectified to a direct current signal is processed by two voltage multipliers (20, 23). A voltage divider (15) establishes a unity gain level, and the variance from this voltage is squared by the first voltage multiplier. This squared voltage is then multiplied with a triangular wave signal to generate a modulated triangular wave signal. The modulated triangular wave signal and a signal to be amplified, typically an audio signal, are processed by an internal comparator (25) to generate a pulse width modulated signal. This modulated signal is processed by a power transistor network (30) and filter (40) to provide an amplified signal to a load device (45). By modulating the triangle wave signal to compensate for fluctuations in the power supply to the amplifier circuit, noise or ripples present in the power supply are demodulated, eliminating the requirement for a regulated power supply.

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